

**Cyprus Tohono Corporation Mine**  
**FACT SHEET**  
**EPA PERMIT NO. AZ0024601**

This document gives pertinent information concerning the issuance of the NPDES permit listed below. This permit, for a minor facility as specified in 40 CFR 122.2, is proposed to be issued for a period of 5 years.

Permittee's Name: Cyprus Tohono Corporation

Mailing Address: P.O. Box 15009  
Casa Grande, AZ 85130-5009

Plant Location: 32 miles south of Casa Grande on HW 15  
Casa Grande, AZ 85122

Contact Person: Ray Romero  
Site Manager  
(520) 361-3111

NPDES Permit No. AZ0024601

## **I. STATUS OF PERMIT**

The Cyprus Tohono Corporation (CTC) filed an initial application for a National Pollutant Discharge Elimination System (NPDES) permit on February 10, 2003 for the temporary discharge of treated pit water. The facility treated and discharged pit water for a limited time and has not discharged since March, 2005. CTC submitted a timely application for a permit renewal on April 1, 2013 in the event that additional pit water may need to be treated and discharged.

Discharges of stormwater from the facility are currently covered under a multi-sector general stormwater permit ID Number AZRO5FH2I. The facility is also covered by RCRA permit AZD094524097.

The U.S. Environmental Protection Agency (EPA) has prepared a draft NPDES permit for the discharge of treated pit water from the Cyprus Tohono Corporation Mine located in Pinal County, Arizona. The mine site is located on tribal lands, and is therefore subject to the jurisdiction of the U.S. Environmental Protection Agency (EPA).

## **II. GENERAL FACILITY INFORMATION**

Cyprus Tohono Corporation (CTC) operates a mine on lands leased from the Tohono O'odham Nation (TON). CTC is currently in care and maintenance status.

The Cyprus Tohono Mine (formerly referred to as the Casa Grande Mine and as the Lakeshore Mine) is located approximately 32 miles south of Casa Grande, Arizona. Initial development of the mine began in

the early 1880s when low grade oxide ore was mined from surface outcrops. Although sporadic mining occurred after this period, no large scale or continuous mining of the property occurred until the 1950s. From 1956 through 1962, Trans Arizona Resources, Inc. operated a small open pit (referred to as the El Paso Pit). Mining of the pit also was carried out by El Paso Natural Gas Company in the late 1960s and resulted in removal of approximately 350,000 tons of oxide ore. In 1970, a joint venture between El Paso and Hecla Mining Company defined a deeper area of sulfide mineralization and began development of an underground mine referred to as the Lakeshore Mine. As part of that development, two primary access/ore haulage declines were constructed, block cave mining was conducted and a surface processing plant was completed. Following Hecla's and El Paso's operation, Noranda operated the property from 1979 to 1987. In 1983, underground mining operations ceased when it became uneconomic and in-situ leaching was implemented.

In July 1987, CTC entered into a lease with TON to operate the property, known at that time as the Casa Grande Mine. In-situ solution mining was continued by CTC and existing roasters on the property were restarted to process concentrate from other mining operations. In late 1993, the two roasters associated with the plant area were removed from service and placed on care and maintenance and subsequently dismantled. Also in 1993, CTC was given approval to operate an interim open pit mining and heap leaching operation. Processing of solutions with the recovery of cathode copper took place in the existing solution extraction/electrowinning (SX/EW) plant facilities. The in-situ leach operation was discontinued the following year. During 1995, CTC completed a Mine Plan of Operations and an Environmental Impact Statement (EIS) for an expanded open pit mining and heap leaching operation and received a Record of Decision (ROD) as approval of the expanded project. However, open pit mining ceased in 1997 while the copper prices and declining copper recoveries resulted in the cessation of the SX/EW operations. CTC was then transitioned into a care and maintenance facility in 1999. In 2004, CTC initiated a project to refurbish the SX/EW facility and initiate recovery of the residual copper within the heap leach pad, and copper cathode production began in January 2005. CTC ceased these residual copper recovery operations on December 31, 2008 and initiated tasks to again transition the property to care and maintenance status. The activities to transition the property were completed in 2009. The facility is operated in care and maintenance status, with no active production occurring. Although CTC has not discharged treated mine pit water as authorized by the permit since March, 2005 the company intends to maintain an active NPDES permit in the event it becomes necessary to begin treating and discharging water once again. The current permit has a requirement that notification shall be provided to EPA and to the Tohono O'odham Nation EPA at least 60 days prior to the discharge of treated pit water.

### **III. RECEIVING WATER**

The outfall from the Cyprus Tohono mine is to an unnamed tributary of the Santa Rosa Wash located on the Tohono O'odham Nation. This is an ephemeral wash that only flows during a storm event.

The Tribe does not have EPA approved water quality standards for discharges to waters located on the Nation. However, the Santa Rosa Wash, at the point it leaves the boundary of the Tohono O'odham Nation is a water of the State of Arizona for which it has established water quality standards. Therefore, water quality standards applicable to the Santa Rosa Wash and its tributaries are applicable to the discharge at the point where the discharge enters State waters. The State of Arizona has adopted water quality standards to protect the designated uses of its surface waters. Streams have been divided into segments and designated uses assigned to these segments. The water quality standards vary by the designated use depending on the level of protection required to maintain that use.

The Santa Rosa Wash at the point where it leaves the boundary of the Tohono O'odham Nation has designated uses of Aquatic and Wildlife ephemeral (A&We) and Partial Body Contact (PBC). The discharge will be approximately 2 to 3 miles upstream of the Santa Rosa Wash, and CTC does not expect the discharge to reach the Santa Rosa Wash during normal operating conditions. Pursuant to Arizona's water quality standards, unlisted ephemeral tributaries are protected by the Aquatic and Wildlife ephemeral (A&We) and Partial Body Contact (PBC) designated uses. See A.A.C. R18-11-105.

*Arizona's final 2010 Integrated 305(b) Assessment and 303(d) Listing Report* do not list as impaired the ephemeral washes near the Cyprus Tohono mine or the portion of the Santa Rosa Wash into which these washes could flow. Thus, the receiving waters are considered "Tier 2" water bodies with respect to Arizona Water Quality Standards at Arizona Administrative Code (A.A.C.) R18-11-107.

#### **IV. DESCRIPTION OF DISCHARGE**

##### **A. Wastewater characteristics**

The wastewater discharged from the CTC mine site consists of treated pit water. The total volume of the pit was estimated at 110 million gallons (April 2013 estimate). The pit lake covers approximately 6 acres and reaches a depth of 80 to 90 feet. The pit began filling with groundwater and surface runoff starting in 1997 when active mining was stopped. Overflow of an estimated 12 million gallons of solution from the heap leach pads to the open pit has occurred during storm events in July 1998, December 1998, July 1999, and on August 8, 2000. As a result, the pit lake water is characterized by low pH and high concentrations of dissolved metals and other contaminants, notably aluminum, cadmium, copper, iron, manganese, magnesium, and zinc. The permittee has provided data on the characteristics of the pit water in their permit application. Sampling data indicate that the concentrations of pollutants in the pit lake vary with depth. In general, the highest concentrations of pollutants have been found at the 60 foot depth.

All of the pit water was treated by the on-site temporary treatment system during the initial permit term in 2004 and 2005. Based on the process flow diagram provided on April 1, 2013, if treatment were to be resumed approximately 80-90% of the treated wastewater would be discharged (at 950 gpm) through Outfall 001 with a daily average flow of 1.37 million gallons per day. The remainder of the wastewater would be recycled back through the heap leach pad evaporative system.

Since 2005, when the last discharge of treated mine pit water occurred, the pit has been slowly refilling with infiltrated groundwater. Additional data characterizing the existing pit lake water quality was provided in the first permit re-application based on sample analysis conducted on January 21, 2008. An additional characterization of the pit lake was conducted February 18, 2013. Discharges in the future, if they occur, due to rising water levels in the pit lake, from natural or manmade sources would be expected to be treated and have similar characteristics to that observed during the initial permit term.

##### **B. Wastewater Treatment**

Pit water if necessary is treated in a 2-stage chemical precipitation unit. The first stage raises the pH to 7.0 with the addition of lime primarily to target aluminum removal. Solids resulting from

pit pollutants will be retained in the 9 million gallon geosynthetic-lined pond, with an initial retention time of approximately 6 days (based on an average flow rate of 1.15 mgd). The second stage will raise the pH to 11 primarily to target magnesium removal. Solids will be retained in a 14 million gallon geosynthetic-lined pond.

Effluent from the second pond is softened with soda ash to remove calcium then adjusted to neutral after solids are settled out and retained in the 1.5 million gallon geosynthetic-lined pond.

CTC projected that treatment required 4,000 tons of lime and generated approximately 15,000 tons (dry weight) of solids. Solids will remain in the lined impoundments which are located on or adjacent to the 8S - 11S heap piles.

A pilot wastewater treatment system was run to determine treatment efficiency and optimize chemical addition rates. For the pilot study, water was pumped from the pit at the 60' depth to represent the most concentrated level of pollutants. The pilot test was run over a period of time to optimize the treatment and several sampling episodes were conducted to evaluate the data. The data that was provided in the permit application is from one sampling event that represents predicted performance of the system.

After softening and sedimentation, the pilot treatment system achieved the following removal rates, and the majority of pollutants were treated to non-detect.

Total dissolved solids	78%
Magnesium	>99%
Aluminum	>99%
Cadmium	>99%
Manganese	>99%
Zinc	>99%
Iron	>99%

This effluent from the softening stage is filtered and sent to a membrane filtration unit to provide an additional level of treatment and to remove remaining dissolved solids prior to discharge. The membrane filtration increased the removal of Total Dissolved Solids to greater than or equal to 94%. Further reductions of many other pollutants were not measurable due to achieving non-detect levels prior to membrane filtration.

The concentrate from the membrane filtration step will be managed in the heap leach system. Based on a rough calculation, it is expected that the concentrate will contain approximately 30,000 to 40,000 mg/L dissolved solids.

DMR data submitted during the treatment operation demonstrated that the treatment operated at a very high level. All effluent standards were met at all times, and the majority of the constituents were treated to non-detect levels prior to discharge.

## V. DETERMINATION OF EFFLUENT LIMITATIONS

### A. Numeric Water Quality Standards:

As outlined in A.A.C. R18-11-109 and Appendix A:

Per 40 CFR 122.44(d)(1)(ii), (iii) and (iv), limits have been included in the permit for parameters with ‘reasonable potential’, that is, those known to be or expected to be present in the effluent at a level that could potentially cause any applicable numeric water quality standard to be exceeded. The procedures used to determine reasonable potential are outlined in the *Technical Support Document for Water Quality-based Toxics Control (TSD)* (EPA/505/2-90-001.)

### B. Permit Limitations:

Guidance for the determination of reasonable potential to discharge toxic pollutants is included in both the *Technical Support Document for Water Quality Based Toxics Control (TSD)* - Office of Water Enforcement and Permits, U.S. EPA, dated March 1991 and the *U.S.EPA NPDES Permit Writers Manual* - Office of Water, U.S. EPA, dated September 2010.

EPA's technical support document contains guidance for determining the need for permit limits. In doing so, the regulatory authority must satisfy all the requirements of 40 CFR 122.44(d)(1)(ii). In determining whether the discharge causes, has the reasonable potential to cause or contributes to an excursion of a numeric or narrative water quality criterion for individual toxicants, the regulatory authority must consider a variety of factors. These factors include the following:

- X Dilution in the receiving water,
- X Type of industry,
- X Existing data on toxic pollutants,
- X History of compliance problems and toxic impacts,
- X Type of receiving water and designated use.

#### Dilution in the receiving water

The discharge from CTC will be to an ephemeral wash that is a tributary to the Santa Rosa Wash, itself an ephemeral waterbody in this area. Therefore, the discharge will largely be to a dry wash and there is no dilution available in the receiving waterbody.

#### Type of Industry

The CTC mine is a inactive copper mine that has employed various techniques to extract copper including in situ leach and heap leach extraction. Copper mines are assigned the highest total toxicity number for discharges under the 1987 Standard Industrial Classification (SIC) code.

### **C. Establishing Daily Maximum Permit Effluent Limitations Based on Hardness**

The March 31, 2002, revisions to the Arizona Surface Water Quality Standards incorporated footnotes *k.1 and k.2* to Appendix A, Table 2 establishing that for discharges to waterbodies designated A&We, that hardness be based on the hardness of the effluent from a sample taken at the same time as the metal sample.

Hardness values are minimal in the effluent from the treatment system, and are expected to be less than 5 mg/L. Therefore, the Acute Water Quality Standards for the lowest calculated value of hardness of 25 mg/L in the Tables to Appendix A were used to determine applicable A&We standards.

### **D. Determination of Reasonable Potential**

The March 31, 2002, revisions to the Arizona Surface Water Quality Standards established water quality standards for acute effects for discharges to ephemeral washes for the protection of aquatic and wildlife (A&We) and for the protection of partial-body contact recreation (PBC).

Reasonable potential for the initial permit was based on data Cyprus Tohono submitted on the proposed treatment system and the pilot plant treat ability study in the permit application. Based on the information provided, especially in consideration of the large volume of wastewater to be discharged (140 million gallons) and high concentration of pollutants in the wastewater, EPA requested further detailed information on the treatment system, including flow rate information, design of the treatment train, hydraulic retention times, chemical addition, treatment unit sizes, and wastewater characteristic data.

For the determination of reasonable potential, EPA first conducted a reasonable potential evaluation based on the effluent discharge data from the pilot plant. The calculations on the effluent were conducted according to guidance provided the *Technical Support Document for Water Quality Based Toxics Control (TSD)* - Office of Water Enforcement and Permits, U.S. EPA, dated March 1991 and the *U.S.EPA NPDES Permit Writers Manual* - Office of Water, U.S. EPA, dated September 2010.

The reported maximum effluent value is multiplied by the “Reasonable Potential Multiplying Factor” provided in Table 3-2 of the TSD, using a 95% confidence level, a 95% probability basis, and a coefficient of variation assumed to be 0.6 based on guidance for small data sets (i.e. less than 10 data points). The statistically estimated maximum effluent value is compared to the lowest applicable water quality criterion to determine the potential for an exceedance of that criterion and the need for an effluent limit. If one of the effluent values is greater than the water quality criterion, then an effluent limit is included in the draft permit. Where the effluent value was non-detect, ½ of the detection limit was used as the maximum reported effluent value.

The only parameters where there was a detectable concentration in the projected effluent to compare to a water quality standard were flouride and boron.

Based on actual performance data provided in the DMRs during the last permit term, EPA has concluded that the treatment system has operated as expected, with the treatment operation achieving very high pollutant removal efficiencies. All effluent standards were met at all times, and the majority of the constituents were treated to non-detect levels prior to discharge.

However, while EPA has a reasonable expectation that the designed treatment system will perform as demonstrated by the pilot plant, EPA concluded that the permit should retain existing effluent limitations due to the potential high volumes of wastewater being discharged and the potentially high concentrations of pollutants present in the raw wastewater.

Therefore, EPA evaluated other factors as allowed in 40 CFR 122.44(d)(1)(ii). For this analysis, EPA included all data used for the initial permit application, and added an evaluation of most recent laboratory analysis of the existing pit lake water characteristics (January 21, 2008 sample date).

EPA believes this is a reasonable approach due to 1) the high concentration of certain parameters and their potential toxicity in the pit lake water and 2) the large volume of wastewater that may be discharged in a short period of time. Therefore, for this draft permit, EPA concluded Reasonable Potential for any parameter where the raw wastewater concentrations were found to be 10xs higher than the applicable water quality standard.

The following table is a summary of sampling data provided in the initial permit application and reasonable potential for the previous permit.

**TABLE 1 – Initial Reasonable Potential Determination (ug/L)**

Parameter	Raw Wastewater	Maximum Effluent Concentration	Statistical maximum concentration	Most Stringent water quality standards	Basis	Reasonable Potential 2
arsenic	135 ug/L	< 10 ug/L (total)	31 (1) ug/L	420 ug/L	PBC (total)	1) no 2) no
boron	1,008	170 (total)	-	126,000	PBC (total)	1) no 2) no
barium	88.7	< 2 (total)	-	98,000	PBC (total)	1) no 2) no
beryllium	58.4	< 2 (total)	-	2,800	PBC (total)	1) no 2) no
<b>cadmium</b>	<b>317</b>	<b>&lt; 2 (total)</b>	<b>6.2 (1)</b>	<b>14.35</b>	<b>A&amp;We acute (dissolved)</b>	<b>1) no 2) Yes</b>
chromium VI	13	< 6 (total)	18.6 (1)	34	A&We acute (dissolved)	1) no 2) no
<b>copper</b>	<b>260,000</b>	<b>&lt; 3 (total)</b>	<b>9.3 (1)</b>	<b>6.3</b>	<b>A&amp;We acute (dissolved)</b>	<b>1) Yes 2) Yes</b>
fluoride	37,500	500	1550	84,000	PBC (total)	1) no 2) no
mercury	<0.2	< 0.2 (total)	0.62 (1)	5	A&We acute (dissolved)	1) no 2) no
manganese	135,000	< 2 (total)	-	196,000	PBC (total)	1) no 2) no
nickel	1,680	< 10 (total)	31 (1)	1,287	A&We acute (dissolved)	1) no 2) no
<b>lead</b>	<b>&lt; 50</b>	<b>&lt; 5 (total)</b>	<b>15.5 (1)</b>	<b>15</b>	<b>PBC (total)</b>	<b>1) Yes 2) no</b>

selenium	52	< 10 (total)	31 (1)	33	A&We acute (total)	1) no 2) no
silver	15	< 5	15.5 (1)	0.32 (dissolved)	A&We acute (dissolved)	1) Yes 2) Yes
thallium	<100	< 1 (total)	3.1 (1)	112	PBC (total)	1) no 2) no
zinc	40,800	< 5 (total)	15.5 (1)	344	A&We acute (dissolved)	1) no 2) Yes

## Footnotes:

(1) Based on using ½ the detection limit

(2) For Reasonable Potential determination 1) based on effluent data

2) based in raw wastewater data

Note that the updated pit lake characterization results (February 2013 sampling) demonstrate much lower concentrations of all pollutants than were initially evaluated. Additionally, the effluent monitoring data obtained during actual discharge demonstrated very effective treatment with almost no constituents present at detectable concentrations. However, due to potential uncertainties of future discharges, EPA has decided to maintain a conservative approach to reasonable potential and has decided to maintain limits in the permit for all constituents which have demonstrated reasonable potential based on any past sampling data. EPA believes it is appropriate to consider all data collected from the pit lake in its assessment in order to establish appropriate limits for any pollutant that may be present in the effluent.

Therefore, EPA is not revising this table for this proposed permit because EPA has already decided to retain all effluent limits that were included in the previous permit.

An analysis of additional data (DMR effluent data and laboratory analysis of the existing pit lake water characteristics on January 21, 2008 and February 18, 2013) demonstrate that there are no additional pollutants with the reasonable potential to cause or contribute to an exceedance of water quality standards. Therefore, EPA is retaining the existing effluent limits and monitoring requirements from the previous permit. Based on the above factors, EPA has determined that discharges from NPDES outfall 001 has the reasonable potential to exceed surface water quality standards for the following metals: cadmium, copper, lead, silver, and zinc.

#### E. Establishing Total Recoverable Metals Effluent Limitations from Water Quality Criteria

Arizona's NPDES Permit Writer's Process Guidance Workbook (Appendix L, Water Quality-based Effluent Limitations for Metals and Translator Studies) states that when developing total recoverable effluent limitations for metals, the permit writer should assume that the relationship between total recoverable and dissolved is 1:1 (i.e., translator = 1). Therefore, limitations for copper and lead have been incorporated into the permit as total recoverable limitations.

#### F. Final Limitations Summary

For pollutants with demonstrated reasonable potential to exceed surface water quality standards, this permit retains effluent limitations based on the most stringent of either technology-based limitations or state water quality standards. Permit effluent limitations based on the aquatic and wildlife, ephemeral beneficial use, were calculated using the foot-noted equations to Table 2 of



the Arizona surface water quality standards and a single value hardness of 25 mg/l.

The March 31, 2002, revisions to the Arizona Surface Water Quality Standards established water quality standards for acute effects for discharges to ephemeral washes for the protection of aquatic wildlife (A&We).

If effluent meets the daily maximum standard, it will be protective of the acute toxics affect on organisms. Therefore, only Daily Maximum Discharge Limits (MDLs) were determined for this permit and were set at the lowest applicable Arizona standard. (Note: The statistical TSD procedures for setting Maximum Daily Discharge Limits and Average Monthly Limits were not used for this permit. The TSD method would only apply when both monthly and daily limits are set.)

TABLE 2 - Basis For Final Permit Limitations

Parameter	Basis Daily Max.
pH	6.5 to 9 - A&We <sup>(1)</sup> , PBC (2)
Cadmium (3)	AZ WQS - A&We (1), acute
Copper (3)	AZ WQS - A&We (1), acute
Lead (3)	PBC (2)
Silver (3)	AZ WQS - A&We (1), acute
Zinc (3)	AZ WQS - A&We (1), acute

Footnotes:

- (1) AZ WQS - A&We = Arizona Surface Water Quality Standard - Aquatic and Wildlife, ephemeral  
 (2) AZ WQS PBC = Arizona Surface Water Quality Standard - Partial Body Contact  
 (3) These standards are written for total dissolved metals so a translator of one to one dissolved to total recoverable is assumed. The final permit effluent limitations for these metals are listed as total recoverable metals.

## VI. NARRATIVE WATER QUALITY STANDARDS

All applicable narrative limitations in A.A.C. R-11-108 are included in the permit.

## VII. SPECIAL CONDITIONS

### A. Outfall erosion protection

In order to prevent erosion and scouring of the channel due to the new discharge flow, the permittee shall establish erosion protection and/or energy dissipation at the outfall location. This may include Best Management Practices (BMPs) such as rip rap, perforated pipe, construction of a splash pool, diffuser, or other means that will slow down the velocity of the discharge and maintain a stable channel.

## **B. Monitoring**

Due to concerns that the volume of discharge may cause problems in the wash, such as flooding or erosion, the Permittee shall establish a monitoring procedure to evaluate the effects of the discharge on the wash. The monitoring procedure shall consist of daily visual monitoring at the discharge point and at the unnamed wash crossing at Indian Road 15, and visually monitoring the distance that it takes for the discharge to infiltrate into the wash for a limiting time at the start of the discharge. If significant erosion or potential flooding is observed, the permittee shall notify EPA and the Tohono O'odham EPA within 24 hours. If it is determined that a problem exists, a solution to the erosion problem may involve reducing the allowable volume of discharge.

## **C. Regulatory Basis for Best Management Practices Program**

The regulations at 40 CFR 122.44(k)(4) state:

*"In addition to the conditions established under § 122.43(a), each NPDES permit shall include conditions meeting the following requirements when applicable.*

*(k) Best management practices (BMPs) to control or abate the discharge of pollutants when:*

*(4) The practices are reasonably necessary to achieve effluent limitations and standards or to carry out the purposes and intent of the CWA."*

The development of BMP plans and individual best management practices for mining operations is supported by the nature of mining operations in general. Disturbance of the overburden due to surface mining causes significant changes in the physical and chemical nature of the mined area, and BMPs are designed to avoid or control discharges which may cause or contribute to violations of water quality standards.

## **E. Notification Requirements for Discharge**

Due to the fact that the Permittee has no immediate plans to begin discharge, the Permittee shall provide notification to U.S. EPA and the Tohono O'odham Nation EPA at least 60 days prior to the commencement of discharge.

## **VIII. MONITORING REQUIREMENTS**

Due to the high concentration of pollutants present in the raw wastewater and the need to control these pollutants in the discharge, which will be over 1 million gallons per day, EPA is establishing the following monitoring requirements for non-regulated pollutants in the effluent discharge.

The following pollutants will be monitored daily: Field pH and Field Total Acidity

The following pollutants will be monitored weekly: Aluminum, Manganese, Selenium, and Zinc.

If no discharge occurs during the reporting period, the permittee shall specify "No discharge" on the Discharge Monitoring Report (DMR) forms. During the time that the treatment plant is not in operation, the permittee shall submit DMRs on a yearly basis, due January 28th of each year.

## **IX. ENDANGERED AND THREATENED SPECIES**

Section 7 of the Endangered Species Act (ESA) of 1973 requires federal agencies to ensure that any action authorized, funded, or carried out by a federal agency not jeopardize the continued existence of a listed or candidate species, or result in the destruction or adverse modification of its habitat. An examination of the effect of this action on any listed or candidate species or their critical habitat is appropriate.

In a letter from Scott Jay Bailey of the Tohono O’odham Nation to Jay Fumusa of CTC (dated February 4, 2003), Mr. Bailey stated that the general area of the discharge is known to contain habitat and sightings of the federally endangered cactus ferruginous pygmy owl and that no other federally endangered or threatened species have been identified in proximity to the project and none are expected to occur.

On April 14, 2005 the cactus ferruginous pygmy owl was “delisted” from the federal endangered or threatened species listing (Federal Register Doc. 06-3533, Vol 71, No 72). The site of the pipeline for the discharge of the treated pit water has been selected so as to minimize any potential negative effect on wildlife habitat and the pygmy owl. The pipeline will be located aboveground on disturbed lands and along existing roads. The temporary pipeline will not require the construction of any new roads nor the clearing of vegetation.

EPA has determined that issuance of the NPDES permit for the CTC mine site will have no negative effect on species that are commonly affected by NPDES discharges. This determination is based on the findings that the permitted discharge to surface waters will be located in an ephemeral wash that does not contain endangered or threatened aquatic species. The project will not disturb habitat in order to site the outfall location and discharge pipe, and no pygmy owls are expected to be disturbed during the construction and removal of the outfall pipe.

In considering all information available, EPA concluded that a determination of NO EFFECT is appropriate for this federal action. A copy of the statement of basis and proposed permit are being sent to the US Fish and Wildlife Services and the Arizona Game and Fish Department for review and comment during the 30-day public review period.

## **X. PERMIT REOPENER**

The draft permit contains a reopener clause to allow for modification of the permit if reasonable potential is demonstrated during the life of the permit.

## **XI. STANDARD CONDITIONS**

Conditions applicable to all NPDES permits are included in accordance with 40 CFR, Part 122.

## **XII. ADMINISTRATIVE INFORMATION**

### **A. Public Notice**

The public notice is the vehicle for informing all interested parties and members of the general public of the contents of a draft NPDES permit or other significant action with respect to an NPDES permit or application. The basic intent of this requirement is to ensure that all interested parties have an opportunity to comment on significant actions of the permitting agency with respect to a permit application or permit. This permit will be public noticed in a local newspaper after a pre-notice review by the applicant and other affected agencies.

### **B. Public Comment Period**

Rules require that permits be public noticed in a newspaper of general circulation within the area affected by the facility or activity and provide a minimum of 30 calendar days for interested parties to respond in writing to EPA. After the closing of the public comment period, EPA is required to respond to all significant comments at the time a final permit decision is reached or at the same time a final permit is actually issued.

### **C. Public Hearing**

A public hearing may be requested in writing by any interested party. The request should state the nature of the issues proposed to be raised during the hearing. A public hearing will be held if the Director determines there is a significant amount of interest expressed during the 30-day public comment period, or if significant new issues arise that were not considered during the permitting process.

## **XIII. ADDITIONAL INFORMATION**

Additional information relating to this permit may be obtained from the following locations:

U.S.EPA  
CWA Standards & Permits Office    Mail Code: WTR-5  
75 Hawthorne Street  
San Francisco, CA 941051  
Telephone: (415) 972-3516  
Attn: Gary Sheth

#### **XIV. INFORMATION SOURCES**

While developing effluent limitations, monitoring requirements and special conditions for the draft permit, the following information sources were used:

1. NPDES Permit Application Form 1 and 2D, dated February 10, 2003 and March 19, 2008, and April 1, 2013.
2. Arizona Surface Water Quality Standards, Title 18, Chapter 11, Article 1. January 31, 2009.
3. Arizona's 1998 Water Quality Limited Waters List, Arizona Department of Environmental Quality, July 1998, EQR-98-8 and Arizona's Integrated 305(b) Water Quality Assessment and 303(d) Listing Report 2002 (EQR 02-04).
4. "Technical Support Document for Water Quality-based Toxics Control," EPA/502/2-90-001
5. Correspondence from Scott Bailey (Tohono O'odham) to Jay Fumusa (Cyprus Tohono Corporation) dated 2/4/03.
6. Correspondences from Jay Fumusa (Cyprus Tohono Corporation) to John Tinger dated: March 24, 2003; April 9, 2003; February 11, 2003.
7. Conversations of John Tinger with John Peterson and Peter Steere of the Tohono O'odham Nation on 4/9/03 and 4/16/03, respectively.
8. "NPDES Permit Writers' Manual," EPA/833-K-10-001. September 2010.